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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,688	05/09/2006	Serge Champseix	0501-1158	4423

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EXAMINER	
SHABMAN, MARK A	
ART UNIT	PAPER NUMBER
2856	
MAIL DATE	DELIVERY MODE
02/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,688	CHAMPSEIX ET AL.	
	Examiner	Art Unit	
	MARK SHABMAN	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-26 and 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-26 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/7/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 28 November 2008 have been fully considered but they are not persuasive.

Page 6 of the remarks describes the Melet reference as it relates to the claimed invention. Applicant notes that the Melet reference comprises syringes 11-13 driven by motor M2 and air pump 14 driven by motor M1. Applicant argues that the aim of the present invention is to reduce risks of breakdown and leaks along with reducing the number of ducts thereby reducing cost. Although the Melet reference uses two separate motors to drive the pistons of the syringes it would still be obvious to one of ordinary skill in the art at the time of invention to combine all syringes into a single block and use a single drive motor to control the movement of all pistons simultaneously. valve 34 makes it possible for the pump piston to operate without forcing air through the system, thus the combination could easily be created without any adverse effect on the system. Such a combination would help to reduce the size of the system as a whole which could help with portability in a lab environment. Further, it would allow for a reduction in parts by removing one of the motors while keeping the same number of valves and ducts, thus simplifying the apparatus as a whole and reducing the number of potential fail points. In combination, one of ordinary skill in the art would be able to easily create the structure as claimed to achieve the advantages stated above. As the other cited references do not address the issue of the air pump, they are not relevant to the arguments at hand.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 17-19, 20, 23, 26 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melet.

Regarding **claim 35**, Melet discloses an automatic hematologic counting and analyzing device comprising a pump assembly containing 3 pistons in a casing and piston as is the definition of a syringe (column 2 lines 29-33) which reads on the "at least two syringes" as claimed. An internal volume is located in between the casing and piston of the syringes. There also exists an "air pump" 14 in the form of a syringe which is part of the unit, thus reading on the pump as claimed. Further included is a collecting portion comprising electronic switch valves EV1-EV15 in figure 1, to which "ducts" are connected. A first set of said ducts connects electronic switch valves to the internal volume of the syringes and a second set of said ducts connects the electronic switch valves in the direction of respective containers for liquids as is seen in figure 1 (containers 30-33 and 35). Melet does not disclose the syringe block where all of the pistons of all of the syringes are rigidly linked to each other so that they simultaneously carry out a single movement inside their respective casings as claimed. It would have

been obvious to one of ordinary skill in the art at the time of invention to combine the syringes 11-13 with the air pump 14 to reduce the number of motors if desired, or simply place them all together for easier access should one or all need to be cleaned or replaced. As valve EV16 can be opened to the environment, it would be possible to keep the same operation of the apparatus without having to use the pump when not needed. It has also been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding **claim 15**, the apparatus of Melet uses only one syringe as an air pump. It would have been obvious to one of ordinary skill in the art at the time of invention to duplicate said syringe to create an air pump which uses two syringes so that air could be supplied to two areas of the system by compressing the pistons of the syringes a single time instead of having to compress the pump two times opening and shutting valves in between or to allow for different pressures to be delivered to the system depending on which pump(s) is/are being operated.

Regarding **claim 17**, the air pump 14 draws liquid from the container 4 into the measuring chamber 20 by reducing the pressure within the chamber prior to the counting step (column 4 lines 19-38).

Regarding **claim 18**, after the method of Melet is finished, the waste is expelled via means of the air pump (column 5 lines 36-39), reading on the claim in its entirety.

Regarding **claim 19**, items 3 and 4 in figure 1 of Melet are described as dilution containers (column 4 lines 5-10), reading on the claimed "at least one dilution chamber"

which can be seen to be "linked direct to a respective electronic switch valve" by a "second duct" (figure 1).

Regarding **claim 20**, a "measurement chamber" is described in Melet as item 20 of the figure illustrated. Since the device in Melet is described as an apparatus comprising many parts, it is understood that said measurement chamber is "fixed on" the collector in order to operate in conjunction with the ducts.

Regarding **claim 23**, the invention disclosed in Melet does not include an optical bench as claimed, however it would have been obvious to one of ordinary skill in the art at the time of invention to include such a bench in any type of sampling machine to aid in the viewing and analysis of blood samples as they are analyzed.

Regarding **claim 26**, the invention disclosed in Melet is used for automatic analysis of blood, thus reading on the claim.

Claims 16, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above, and further in view of Bachenheimer US patent 4,607,526 (hereinafter referred to as Bachenheimer).

Regarding **claim 16**, Bachenheimer discloses a particle analysis system containing a face plate member and a mating flexible member, one of which has a plurality of passages (abstract). The passages provide a path for the various fluids to follow within the system (column 3 lines 50-56). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the passageways of Bachenheimer with the apparatus of Melet in order to create a system which is capable

of operating on small volumes of fluid and to reduce the amount of connecting tube required.

Regarding **claim 22**, Bachenheimer discloses a series of passages as described in the rejection of claim 3. These passages are seen as "vessels" for transporting fluids, thus reading on the "hydraulic circulation vessel" as claimed.

Regarding **claim 24**, Bachenheimer discloses the use of electronic circuits in the process of blood analysis (column 4 lines 39-44). These circuits would have to be on some sort of "card" as claimed which would be able to be fixed to the detector if required.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above in view of Kim US Patent 5,648,225 (hereinafter referred to as Kim).

Regarding **claim 21**, Melet discloses the claimed invention with the exception of an incubation chamber. Kim discloses a method for analysis of a blood sample. Kim describes in the background of the invention the need for incubation when analyzing blood sample and in column 3 lines 58-63 the use for incubation in the analysis method disclosed. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Melet to provide an incubation chamber or means for incubating the blood within one of the chambers 20, 21, or 22 to help denature the cell surface antigens to promote hemoglobin clumping to aid in counting.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melet as applied to claim 1 above in view of Jottier US Patent 4,231,990 (hereinafter referred to as Jottier).

Melet discloses the claimed invention with the exception of placing the syringe block in an air conditioned unit. Jottier discloses an apparatus for the treatment of fluids which can be used in the medical field for blood analysis (column 4 lines 27-38). The apparatus contains a cooling device consisting of a closed loop circuit in which fluid flows (column 1 lines 57-64). Since blood is sensitive to temperature and must be kept cool for proper storage and analysis, it would have been obvious to one of ordinary skill in the art at the time of invention to maintain a cool temperature surrounding the system while analysis was taking place. This could be accomplished a number of ways including simply lowering the temperature of the testing room to prolong the survival of the blood sample.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK SHABMAN whose telephone number is (571)270-3263. The examiner can normally be reached on M-F 8:00am - 4:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S./
Examiner, Art Unit 2856
/Hezron Williams/
Supervisory Patent Examiner, Art Unit 2856